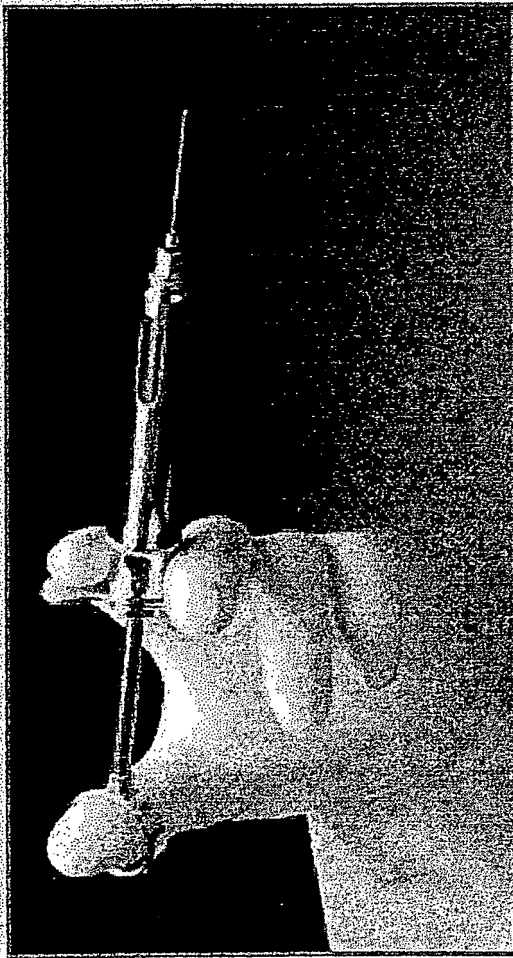


BEST AVAILABLE COPY

Small text at the top of the page, likely a header or page number, which is mostly illegible due to the quality of the scan.

Palm-Thumb Grasp



Pen Grasp

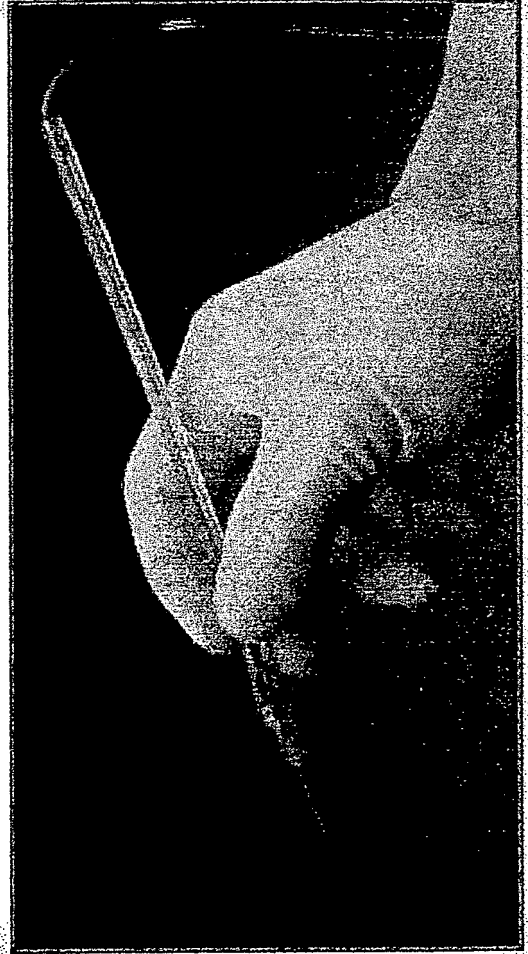


FIG. 1A

PNOW ANT

FIG. 1B

PNOW

Figure 3

ANT

Insertion Techniques

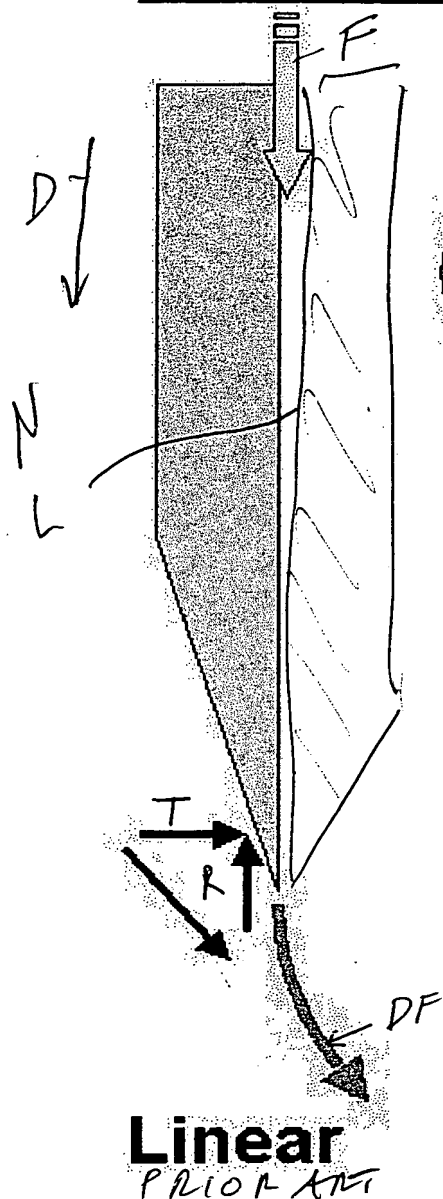


FIG. 2 A

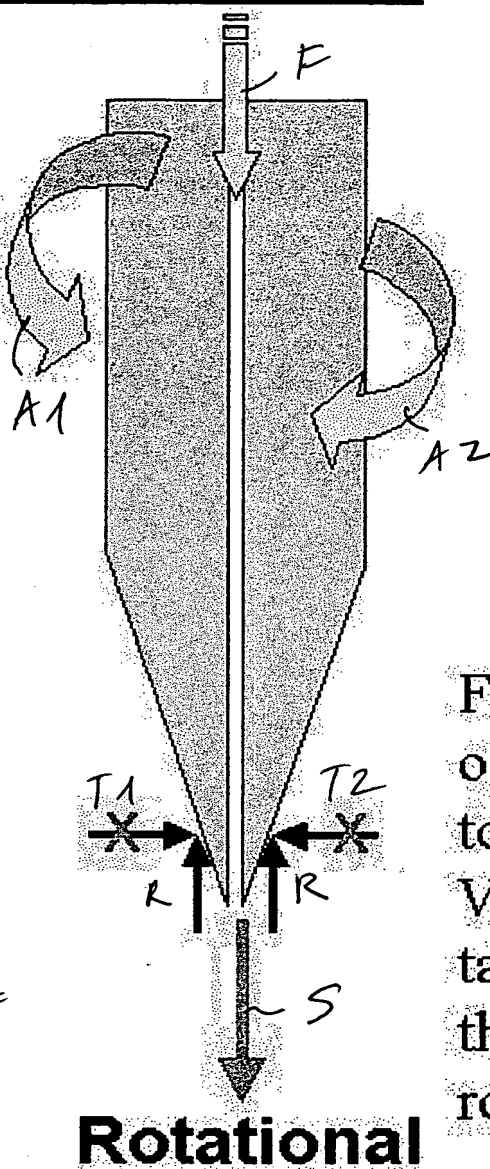


FIG. 2 B

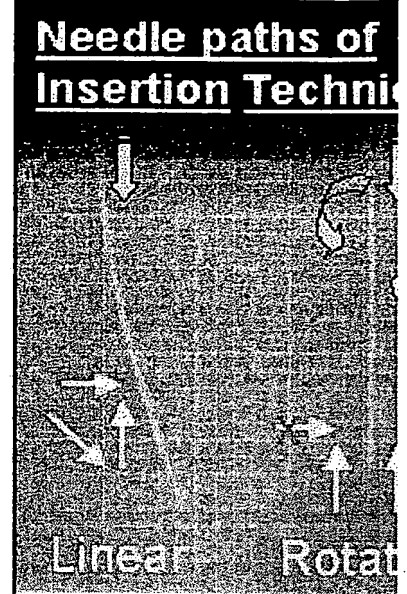


Figure 4 simplistic illustration of the vector force system to the beveled end of the needle. Vector analysis illustrates the forces taken during needle insertion in the Linear and the Bi-rotational insertion techniques.

BEST AVAILABLE COPY

Rotational Insertion

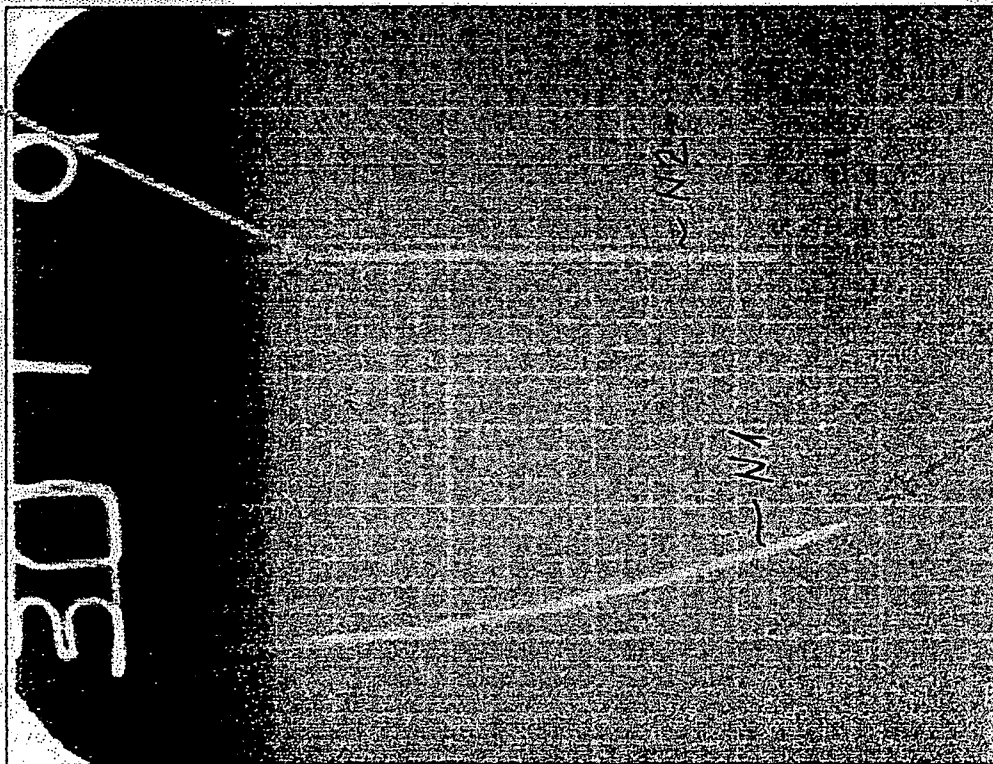


FIG. 3A

Linear Insertion

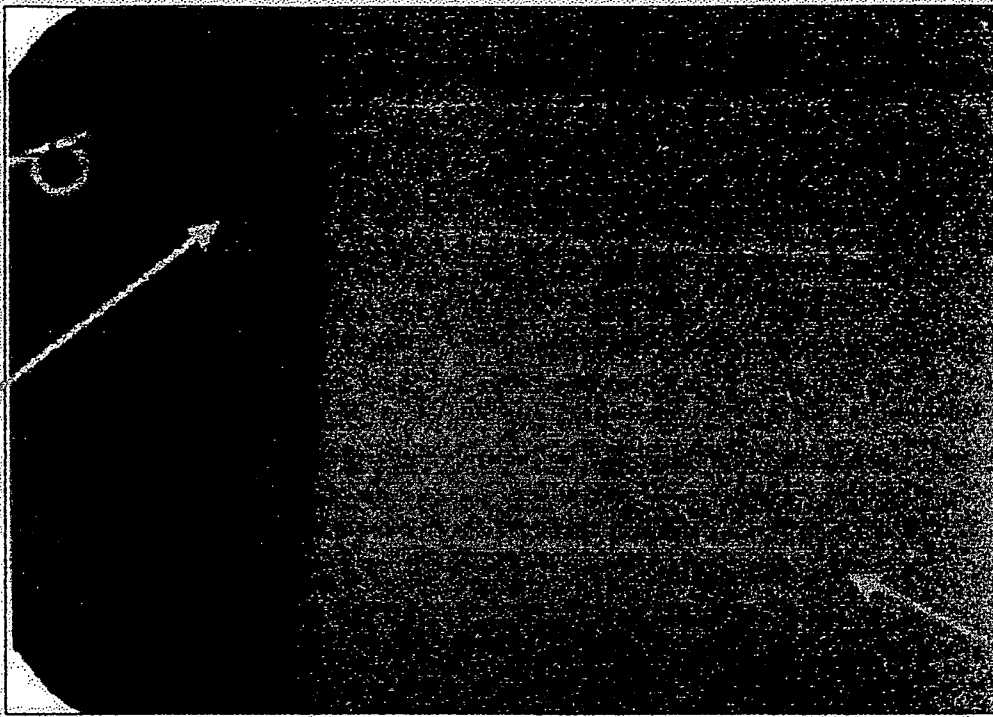


FIG. 3B

30-gauge needle

Linear vs. Bi-directional rotation Insertion

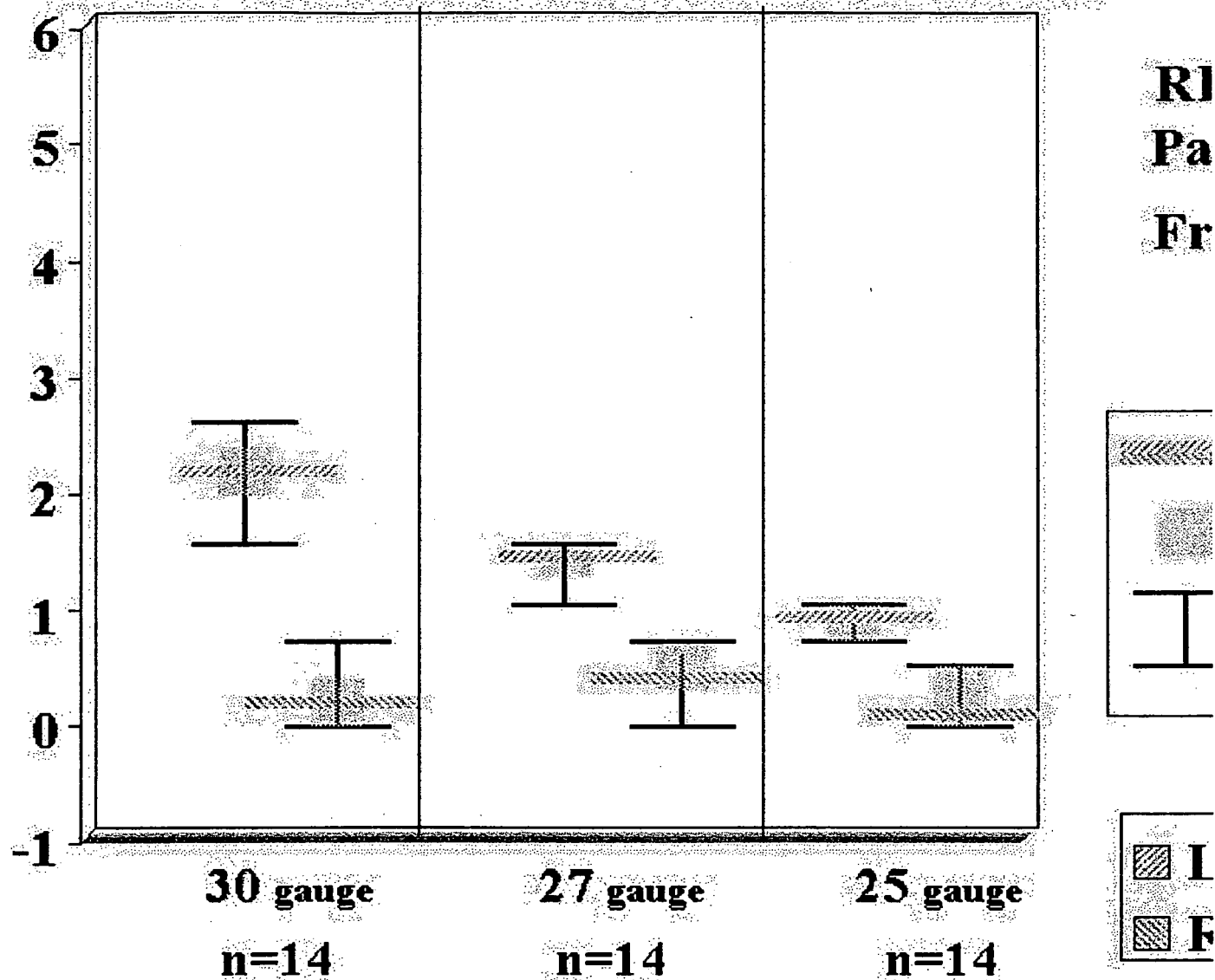


FIG. 4

TEST AVAILABLE C